

West Nile Virus Update

Craig Levy, Program Manager, Vector-Borne & Zoonotic Disease

Year 2008 marks Arizona's 6th year in dealing with the West Nile virus (WNV), and marks the 10th year since it was first detected in the eastern United States. Since its arrival in Arizona in 2003, over 770 human cases of West Nile virus (WNV) have been reported, including 16 cases reported in 2008. Of these, over 40 percent have been neuroinvasive infections (meningitis and/or encephalitis), and 30 (4%) have died. Ages have ranged from one month to 99 years.

WNV activity is seasonal (usually May through October), but its occurrence and severity are unpredictable. Since 2005, WNV activity has peaked during the months of August and September in Arizona. The risk for WNV transmission can continue well into October in the warmer counties. Health officials throughout the state conduct surveillance to monitor risk, and implement vector control measures when WNV activity is identified. The most recent surveillance information can be found at http://www.azdhs.gov/phs/oids/westnile/wnv_update08.htm.

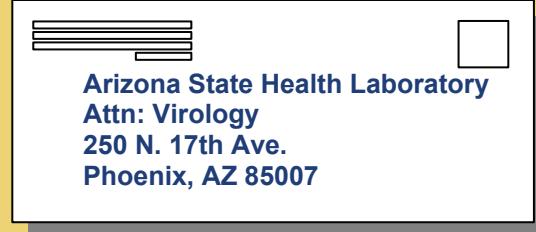
Clinical Features of WNV infections

- Approximately 70-80% of WNV infections are clinically inapparent.
- About 20% of those infected develop West Nile fever. West Nile fever can range from mild to severe and is characterized by sudden onset of fever often accompanied by one or more of the following: malaise, headache, anorexia, nausea, vomiting, eye pain, myalgia, maculopapular rash or lymphadenopathy. Some symptoms may persist from days to months.
- Approximately 1% of infections with WNV or SLE will result in neurological disease such as meningitis and/or encephalitis.
- The incubation period is thought to range from 3 to 14 days in immunocompetent individuals, and up to 21 days after organ transplantation or blood transfusion.
- The most significant risk factors for developing severe neurological disease are advanced age and/or history of diabetes.
- In recent WNV outbreaks, symptoms occurring among patients hospitalized with severe disease included fever, weakness, gastrointestinal symptoms and change in mental status; also reported were severe muscle weakness and flaccid paralysis (spastic paralysis can occur with SLE infection), maculopapular or morbilliform rash involving neck, trunk, arms or legs, ataxia and extrapyramidal signs, cranial nerve abnormalities, myelitis, optic neuritis, polyradiculitis and seizures.

Laboratory Findings Among Patients in Recent Outbreaks

Total leukocyte counts in peripheral blood were mostly normal or elevated, with lymphocytopenia and anemia also occurring. Examination of the cerebrospinal fluid (CSF) showed pleocytosis, usually with a predominance of lymphocytes.

WNV is a reportable condition in Arizona by both physicians and laboratories. Ordering appropriate diagnostic tests and reporting cases is a vital part of the surveillance program. Surveillance data helps health officials to identify communities at higher risk for disease and helps them to prioritize and target vector control efforts. Laboratory testing is available through commercial laboratories. Or, it can also be done at the Arizona State Health Laboratory (ASHL). The ASHL currently performs an IgM capture ELISA for WNV and St. Louis encephalitis (SLE). Testing can be performed on serum or CSF. Specimens can be sent to:



The following information must accompany specimens: patient name, age or date of birth, onset of symptoms, specimen collection date, primary symptoms/clinical picture and contact information for submitting physician.

If you any questions, please feel free to contact us at (602) 364-4562. For more information about West Nile Virus in Arizona, visit us on the websites: <http://westnilevirusaz.com> or <http://www.azdhs.gov/phs/oids/vector>.



Public Health Update

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Arizona Emergency System

Will Humble, Deputy Director of Public Health Preparedness

We Need Your Help in an Emergency

The Arizona Department of Health Services (ADHS) is seeking health care professionals who are willing to volunteer in the event of a large-scale public health or medical emergency.

To have an effective emergency response plan and system in Arizona, the region and nation must be able to quickly identify and contact volunteer health professionals who have specific skills and competencies needed to care for people who are injured or ill. The advance registration of volunteer health professionals enables ADHS, local health departments and emergency management to rapidly identify and mobilize health care volunteers. The system enables hospitals and other medical entities to meet crisis and surge capacity needs and ensure the continuance of critical health care services during an emergency.

All volunteers enrolled in the program are eligible for state and/or local-sponsored liability and legal coverage and workers compensation within the borders of the state or local jurisdictions during a “declared state of emergency” or public health emergency crisis or, if officially deployed by the governor to a disaster area outside the state, under the national Emergency Management Assistance Compact (EMAC) or by other mutual aid agreements.

Registration

The Arizona Emergency System for the Advanced Registration of Volunteer Health Professionals (AZ-ESAR-VHP) is a highly secure, Web-based system used to register, qualify and credential Arizona volunteer health care professionals before a major public health or medical emergency. Registration is done online and takes under 30 minutes. [Step-by-step registration instructions](#) are available. Under no circumstances will information be sold or shared outside of public health.

Registrants should have vaccination reports, contact and personal information, and records of licenses, certifications and competencies readily available during the registration process.

To register and for answers to frequently asked questions visit our website at <http://www.azdhs.gov/volunteer/>